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ABSTRACT

These five papers are from a symposium on high involvement work teams that was facilitated by Catherine M. Sleezer at the 1995 Academy of Human Resource Development (HRD) conference. "An Empirical Study of Employee Involvement in Designing and Managing Reward Systems" (William M. Kahnweiler) reports on a study of 300 organizations that found the extent of involvement of nonmanagement employees in designing and managing pay systems was modest and unrelated to organizational size and industry, but that some organizations provided consider responsibilities in this area to nonmanagement employees. "Involving Workers in the New Learning Environment Required for a High-involvement Organization: The Workers' Perception" (Joseph A. Ilacqua) suggests that workers need to be involved in the new learning environment in order to increase competitiveness in a global market. "What Do First-line Leaders Need to Succeed?: Identification and Validation of Competencies of First-line Leaders in High Involvement Organizations" (Paul Hardt) is a report of focus group discussions and surveys that identified and validated eight competencies of first-line leaders in high-involvement organizations. "Validating a Check Sheet as a Guide for High-Involvement Training" (Paul E. Brauchle, David W. Wright) presents a check sheet developed from work with 10 different production teams that can be used to guide team development in a high-involvement workplace. "Characteristics of High Performance Work Teams: Perspectives from the Literature" (Cathy Bolton, LeRoy Anderson, Amy Dodge, Jamie Tower, Brenda Unruh) explores the concept of high performance work teams (HPWTs) by examining definitions and characteristics of HPWTs, characteristics of organizations that use HPWTs, and considerations in transitioning from traditional teams to HPWTs. (KC)

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[24] **HIGH INVOLVEMENT WORK TEAMS** Facilitator: Catherine M. Sleezer, Oklahoma State University

An Empirical Study of Employee Involvement in Designing and Managing Reward Systems
William M. Kahnweiler, Georgia State University

Involving Workers in the New Learning Environment Required for a High-Involvement Organization: The Worker's Perception
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Identification and Validation of Competencies of First-Line Supervisors in High Involvement Organizations
Paul O. Hardt, Employer's Association, Inc.

Validating a Check Sheet As A Guide For High Involvement Training
Paul E. Brauchle, Illinois State University
David W. Wright, Illinois State University

Characteristics of High Performance Work Teams: Perspectives from the Literature
Cathy Bolton, LeRoy Anderson, Amy Dodge, Jamie Tower, & Brenda Unruh, Oklahoma State U.

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An Empirical Study of Employee Involvement in Designing and Managing Reward Systems

William M. Kahnweiler
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A study of nearly 300 organizations was conducted to assess the nature and extent of involvement among non-management employees in designing and managing pay systems. Overall, the extent of involvement was found to be modest and unrelated to organizational size and industry. However, some organizations grant considerable responsibilities in this area to nonmanagement employees. Involvement tended to occur informally rather than systematically. Case examples are provided and implications for HRD research and practice are discussed.

Many American businesses are struggling to find, keep, and motivate employees who are dedicated, flexible, and highly skilled. Increased domestic and global competition, flattened organizational structures with few promotional opportunities and vast spans of control, and a downsized work force whose loyalty to their employer is minimal or non-existent exacerbate this challenge.

One response by corporate leadership has been to promote more involvement of non-management employees in areas that traditionally have been managers' responsibilities. These areas include quality, production standards, personnel selection, strategic planning, and work re-design (Bowman, 1989; Das and Shikdar, 1988; Newstrom, Lengnick-Hall and Rubenfeld, 1987; Pace, 1987; Macy, Peterson, and Norton, 1989). The rationale for such practices is typically that the people who are in the best position to solve problems and make decisions are the ones who are "closest to the action." See Bass (1991) for an exhaustive review of theory and empirical research (including meta-analyses) on employee involvement.

The vast amount of research on employee involvement shows mixed results regarding its effectiveness. Nevertheless, it appears that more and more organizations are either considering adopting it or actually doing so (Kahnweiler, 1991b; Lawler, Mohrman, and Ledford, 1992). It also appears that the trend of pushing problem solving and decision making down to the lowest possible level of the organization will likely continue throughout this decade and into the next century (Bluestone and Bluestone, 1992; Leana, Locke, and Schweiger, 1990).

In addition to increased employee involvement in business operations, organizations are scrutinizing their compensation systems more carefully (Gomez-Mejia and Welbourne, 1988; Lawler, 1990; Lawler, Ledford, and Mohrman, 1989). Achieving the more traditional objectives of compensation plans--to attract, retain, and motivate valued human resources--is a necessary but insufficient means of supporting an organization's aspirations for prosperity in a volatile business climate (Miner and Crane, 1994; O'Dell, 1987; O'Dell and McAdams, 1987). The perspective of pay systems is shifting from the tactical to the strategic. Organizations are expecting their reward systems to be both cost-effective and an impetus for long-term business success. These expectations are not easy to meet. One response has been to experiment with imaginative pay systems that have little historical precedent (Miner and Crane, 1994).

Despite the fact that many organizations appear to be increasingly interested in employee involvement and effective pay systems, there is little evidence of the merging of these two trends. Empirical research concerning the nature and extent of employee involvement in the design and management of compensation programs is much less prevalent than theoretical and anecdotal accounts (for example, see Lawler and Cohen, 1992; Schuster and Zingheim, 1992).

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As an initial response to the lack of empirical findings on employee involvement in the compensation arena, an exploratory study of non-management employee involvement in various aspects of compensation plans was conducted. The study attempted to identify the degree of employee participation in pay systems, the methods used to foster it, and the particular components of compensation system design and management in which such participation is encouraged. The prevalence of so-called non-traditional reward systems (for example, gainsharing and skill-based pay) and the identification of the factors which account for a lack of employee involvement in compensation were also assessed.

Following a description of methodology, the key results and major conclusions drawn from these results will be presented. Implications for HRD practice (including illustrative case examples) and suggestions for further research will follow. As used in this article, the term "employee" pertains to personnel who occupy non-managerial positions--i.e., individual contributors.

Method

Sample. Since this study was exploratory, a broad representation of organizations across sizes and industries was desired. A total of 1078 surveys were mailed to such organizations throughout the Southeastern United States. The targeted enterprises included businesses ranging from small to those in the *Fortune* 500 (industrial and service) as well as non-profit organizations. Either the top human resource officer or the senior compensation manager/specialist was asked to complete and return the survey instrument.

Survey Instrument. The preliminary design of the survey instrument was piloted with a sample of 30 managers. This led to the re-wording of a few survey items. The instrument was designed to obtain a critical mass of data while minimizing the amount of time and effort required from participants. It was therefore comprised mainly of items which elicited categorical data. However, to measure the extent of employee involvement in various aspects of compensation plan design and management, subjects were asked to indicate one of four levels: 1) None, 2) Consider Ideas, 3) Recommend, and 4) Empowered To Decide. Conceptualizing the employee involvement process on a continuum has ample precedent (for example, see Cotton and others, 1988; Crane, 1976).

Data Analysis. Based upon demographic information obtained, responses to survey questions were grouped by size and industry of each participating organization. Chi-square tests were then applied to the categorized data to determine if company size and industry were significantly ($p < .05$) related to differences in overall involvement level, types of pay plans employed, involvement vehicles utilized, and the reasons for non-involvement. To test whether levels of involvement on specific aspects of compensation system design and management were significantly ($p < .05$) different among size and industry groups, a general linear analysis was used. As appropriate, any narrative comments provided by respondents were either assigned to existing categories or content analyzed and placed in a new category.

Key Results

Sample. A total of 290 usable returns were received, resulting in about a 27% response rate. This compares very favorably with other survey research on employee involvement.

Data was obtained from a broad cross-section of firms. Organizational size, as measured by number of employees, varied from less than 50 to more than 50,000. Virtually every major industry category was represented.

While the sample was limited to firms in the Southeastern U.S., its diverse composition (in terms of size and line of business) and the large number of respondents make it reasonably likely that the results are relevant to other regions of the country.

To facilitate data analysis, each participant was grouped into one of four size categories and one of three industry categories. The size categories were: 1) small = less than 500, 2) medium = 500-999, 3) large = 1000-2999, and 4) very large = more than 3000. The industry categories

were: 1) product (for example, manufacturing, high technology, chemicals, food and beverage), 2) service (for example, transportation, hospitality, health care, professional/consulting services, insurance, banking, utility), and 3) institutional (for example, education, government, social services, professional association). A complete breakdown of the sample may be obtained from the author.

Overall Involvement. Almost half of the organizations (134 out of 290) indicated they involve non-management employees in designing or managing some aspect of their compensation plans. There was little variation among different size and industry categories.

Prevalence of Different Types of Pay Plans. Among the forms of compensation which are most directly associated with employee involvement, skill-based pay is operative in more organizations (nearly 28%) compared with gainsharing (7%), group incentives (16%), and an all-salaried workforce (nearly 17%). Interestingly, approximately the same proportion of firms use skill-based pay as those which have a profit-sharing plan. Skill-based pay, a relatively new concept in which compensation is based on the level and/or mix of competencies possessed by the job incumbent, has often been installed in organizations as part of a larger employee involvement effort. In contrast, profit sharing has existed for decades and is not necessarily linked with employee involvement initiatives.

Group incentive plans, in which team rather than individual performance is expected and rewarded, are often part of a larger employee involvement effort. This type of reward system was reported to be significantly less prevalent in companies with fewer than 500 employees (8.9%) and more common as company size increases (15.7%, 21.4%, and 24.1% for medium, large, and very large, respectively). However, organizations across different industries and sizes appear to favor the use of individual incentive plans over group-based rewards (39.9% versus 17.5%).

Involvement Vehicles. The vehicles used to foster employee involvement can range from very informal to extremely systematic. This study found that the more informal the vehicle, the more it tended to be used, and vice versa. For example, informal groups (that is, those which do not meet regularly or whose composition is not pre-determined) were found to be the most common method of involving employees in pay systems (44%). In contrast, systematic procedures, such as QWL teams or standing committees, exist in relatively few organizations (6.7% and 5.2 %, respectively). The number of firms which involve employees through ad hoc committees/task forces (24.7%) and joint employee-management committees (17.2%) fell in between these two extremes.

It is interesting to note that in contrast to today's emphasis on quality, only 3 organizations out of 134 (2.2%) indicated they used TQM groups or teams to involve employees in designing or managing compensation plans.

Extent of Involvement. For each of 11 activities typically associated with designing and managing pay plans, respondents were requested to indicate one of the four aforementioned levels of involvement: 1) None, 2) Consider Ideas, 3) Recommend, and 4) Empowered to Decide. The areas in which the extent of employee involvement was most pronounced were 1) preparing job descriptions, 2) identifying job requirements, and 3) determining performance measures. These components of compensation systems were ones in which a sizeable number of organizations sought employee involvement beyond the level of providing information or ideas.

For example, many organizations in the sample want job incumbents to write their position descriptions, indicate the key skills needed to perform their job, and suggest ways that their performance should be assessed. At the same time, organizations appear reluctant to empower employees to make decisions about the content of their job descriptions, the skills required to perform their jobs, and how their performance should be measured.

The level of employee involvement in determining compensable factors (i.e., dimensions such as skill, knowledge, problems encountered) was reported as modest. Organizations involve employees to minimal degrees on seven other compensation design and management activities. These are: conducting job evaluations, obtaining or analyzing market data, developing salary administration policies, determining jobs or people eligible for pay programs, determining payout levels for various performance levels, determining compensation mix, and determining pay

structures. Subsequent analyses through a general linear model resulted in no significant ($p > .05$) differences in level of involvement among different size and industry categories.

While the absolute number of organizations which grant employees the power and authority to make decisions on compensation issues is low, it should be noted that some organizations indicated they do so. For example, the lowest level of involvement on any activity was with reference to developing pay structures. However, even in this case, some employees in a few organizations do make these kind of decisions. Overall, organizations which involve employees in compensation tended to do so by having them share opinions and make recommendations to managers or HR specialists. The managers and specialists then used this input to formulate decisions on compensation policies and procedures.

Organizational practices vary widely in terms of how employees are involved in different aspects of compensation design and management. Examples of the breadth and extent of this involvement, based on the results of this study and the author's experience as a consultant, appear on pages 4 and 5.

Reasons Organizations Do Not Involve Employees. A total of 156 organizations, or about 54% of the sample, indicated they do not involve employees in any aspect of compensation system design or management. No single factor predominately accounted for the lack of involvement. Management's resistance to give up control was cited most frequently (over 37%), followed by the perceptions that employee involvement was too time consuming, other priorities were higher, and employees' skill levels to be involved were deficient (about 25% each). Among the respondents who do not involve employees, about 10-15% of them cited the following reasons: a) goals for employee involvement are unclear, b) rewards to employees for their involvement do not exist, c) it is too difficult to decide which employees to involve, and d) management lacks the skills to involve employees. Contrary to "conventional wisdom," only 1.3% of these organizations indicated that they avoid involving employees in pay issues because of union opposition or because employees do not want greater involvement in decision making.

A few organizations indicated additional barriers. These included the belief that compensation is solely management's responsibility or the corporate culture is incongruent with employee involvement. A small number of respondents indicated they either are in the start-up phase of an organization-wide employee involvement process starting with middle managers or have never considered involving employees in the first place. Statistical analyses revealed the reasons for lack of involvement did not differ by size of company nor by type of industry.

Examples of How Organizations Involve Employees in Pay Systems

Organizations involve employees in designing and managing compensation systems in numerous ways. This study reveals that practices vary widely in terms of the nature and extent of involvement and how it is fostered. The examples below describe only some of the many options that are available to organizations which are contemplating the initiation or enhancement of employee involvement in their pay systems.

- *Prepare Job Descriptions*--An employee writes a draft of the document and submits it to his/her immediate manager for review and approval.
- *Identify Job Requirements*--A manager requests each of his/her direct reports to compile a detailed listing of the knowledge, skills, and abilities needed to perform their jobs satisfactorily. After reviewing these, the manager incorporates the employees' lists into the final document.
- *Determine Performance Measures*--Groups of employees in the same position reach consensus on how their performance should be measured accurately and fairly. These suggestions are then incorporated by management in reaching the final decision.
- *Determine Compensable Factors*--A group of incumbents whose jobs are to be evaluated on the same system is formed. The group decides on the factors to be used to measure the relative worth of jobs.
- *Conduct Job Evaluations*--A vertical slice of incumbents (either the same group as above or a different one) measures relative job worth using either a system already in place or one designed

within the organization. Typically, individuals do not evaluate their own jobs but may do so with jobs at or below their level.

- *Obtain or Analyze Market Data*--A task force of people in non-exempt jobs designs its own local wage survey. A group of individual contributors in exempt jobs analyzes pay survey data and presents its findings and recommendations to management.
- *Develop Salary Administration Policies*--Guidelines for merit and promotional increases are developed by an ad hoc committee composed of managers and employees.
- *Determine Jobs or People Eligible for Pay Programs*--A joint employee-management committee recommends the jobs to be included under a new skill-based pay plan. A design team determines who is eligible to participate in a re-configured incentive program.
- *Determine Pay Levels for Various Performance Levels*--A team of employees who will be under a new group incentive system provides management with their suggestions on what percentage of a bonus pool should be paid to the team for delivering expected and greater than expected performance.
- *Determine Compensation Mix*--An individual employee gives his/her manager their ideas on how much of their total compensation package should be base versus variable or at-risk pay.
- *Develop Pay Structures*--A job evaluation committee assigns each job to grades. Then, based on market data and the organization's ability to pay, the committee suggests the pay ranges assigned to each grade level.

Major Conclusions

Taken collectively, the results of this study can be distilled into 3 major conclusions. These are:

1) The overall extent of employee involvement in compensation systems is moderate.
2) In general, the nature of this involvement tends to be informal rather than systematic.
3) Neither the line of business nor the size of the organization appear to be factors in the nature, extent, and method of employee involvement in pay systems.

Implications For HRD Practice

What do the results of this study suggest for organizations which are contemplating increased employee involvement in their compensation systems? What issues should organizations and HRD professionals consider as they explore the possibility of involving employees in the pay arena?

In response to these questions, the following broad guidelines are offered. They are based upon the results of this study, other related research, and the author's work with numerous organizations which decided to involve their employees in compensation practices. Case examples accompany each guideline. These are intended to illustrate how organizations have successfully implemented employee involvement in the design and management of reward systems and what HRD professionals can do to facilitate that process.

1. Genuine commitment from top management is necessary. Employees will readily tell the difference between sincere and superficial attempts to increase their involvement in any business practice. Compensation represents a significant investment for most organizations. Therefore, involving employees in pay systems is a very tangible and potent way of demonstrating top management's genuine desire to practice participative management. Involving employees in compensation is both a literal and figurative means of conveying the organization's willingness to "put its money where its mouth is."

An SBU of a *Fortune* 50 manufacturer embarked upon a long-term strategy to involve employees in all aspects of the business. Cross-functional teams were formed to address issues and make recommendations to top management. One team was charged with examining and improving all of the SBU's compensation plans. From the outset, the head of the SBU initiated continuous dialogue with the team to assure clear two-way communications were maintained. In particular, the executive asked the team how he could be a helpful resource and then made sure he responded to each and every request made by the team. In effect, the executive was a key player in the

involvement process rather than merely a cheerleader on the sidelines.

*2. **Involvement is relative rather than absolute.*** This study demonstrated that employee involvement in compensation can range from providing opinions to having complete decision making authority. Initiating an involvement effort or enhancing the extent of employee participation does not equate with "giving the store away" (Kahnweiler, 1991a). The results of this study show that there are many opportunities to increase the extent of employee involvement in compensation program design and management while retaining management's control of these resources.

A division of a *Fortune* 500 service business decided to examine the internal equity and external competitiveness of its non-exempt pay practices. A self-managed team of non-exempt employees was formed to conduct various analyses and made recommendations to management. From the start of this project to its completion, management made it clear to both the team and the entire organization that it would retain the ultimate authority to approve, revise, or reject the team's suggestions.

*3. **Focus on process as well as product.*** How employees are involved in compensation is as important, and perhaps more critical, than the outcomes they produce as a result of being involved. For example, some organizations have elaborate and sophisticated gainsharing plans that were designed by management with little employee input. The problem here is that the organization ends up with a pay system designed to increase employee involvement but the actual process of putting the system in place was a traditional, top-down approach. Employee participation in compensation should be sought at the outset of any involvement initiative and continue throughout the life cycle of any particular project.

The human resources executive and top management of a manufacturing company with 1000 employees agreed that their pay plans needed an overhaul. However, before they implemented any of their ideas, they asked a sample of employees representing all levels and functions for input. Specifically, the employees were asked for their ideas on what the problem was, how it manifested itself, and what should be done about it. Asking employees for their input on the identification of the problem was a key aspect of the involvement process and ultimately resulted in pay systems that were more effective for the organization. Often, managers will say to employees, "Here's the problem. We know what it is so we don't want your input on that--we just want your input on how to solve it." However, when management asks for employee input on the analysis of the problem, it conveys the message that the organization is serious about employee involvement. It also tends to result in more effective solutions.

*4. **Pilot an involvement effort.*** Many firms have found that it makes sense to start the involvement process in one area rather than trying to implement it throughout the organization at the same time. Those areas that seem ready to embark on the involvement process generally have the best chance of succeeding at it--and nothing breeds success like success. While this strategy may create perceived inequities in those areas not chosen as pilot sites, it is important to achieve successes early in the involvement process. Otherwise, skepticism or discouragement can flourish and become insurmountable down the road.

A health care organization decided to increase employee participation in its job evaluation process. When it began this process, it chose its auxiliary services operation as its pilot site because management-employee relations were more amicable compared to other parts of the hospital. These other functions within the hospital became more willing to consider involvement by employees in the job evaluation system after auxiliary services employees and managers experienced some success with it. While this shift in attitude certainly did not occur overnight, it is doubtful that it would have happened at all if the hospital had chosen a "full throttle" approach to employee involvement.

*5. **Expect resistance from managers.*** Despite the fact that employee involvement is relative and not absolute, managers below the top level often perceive it as "a take away" and will therefore resist it. This study suggests that management's perception that involvement requires that they give up control is a key obstacle to employee involvement in compensation. Executives and HRD professionals need to remember that such resistance is normal. In fact, because

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compensation is such a critical issue, there should be cause for concern if management did *not* resist the idea of involving employees in it. When signs of resistance surface, it is important to accept rather than deny or minimize them. Resistance from managers means that they are dealing with issues which are very important to them. At the same time, it is important for HRD professionals to educate, remind, and/or convince managers that the main driver of employee involvement, whether in compensation or any other area, is to improve business performance. When viewed in this context, managers who are reluctant to involve employees in pay systems may start to become attracted to the concept.

In the SBU depicted in the first example, managers on the team were not accustomed to asking rank and file employees for their opinions on how to improve business practices much less consider these opinions. The managers' resistance was expressed in a number of ways, such as showing up late for team meetings, trying to dominate discussions, and not listening to employees' ideas. It was important that these behaviors were allowed to be expressed even though they were somewhat disruptive to the involvement process. Having "all of management's cards on the table" was necessary in order to work through their resistance.

6. Expect resistance from employees. If senior managers, HRD professionals, or others announce that employees are expected to be more involved in the organization's pay systems, it is likely that they will resist the idea. We all resist change to some degree, even when it is in our enlightened self-interest to change. If the organization has had a legacy of adversarial management-employee relations, employee resistance can be expected to be a given. And, as most of us know, it is safer to be led than to be involved because then we can blame others (i.e., employees can blame management) when things go wrong. As with managers, employee resistance to involvement should be expected and its open expression should be encouraged. Persistence is also important.

A high technology company with 16,000 employees had a long history of poor management-employee relations. The new CEO was committed to greater employee involvement throughout the business, including the improvement of its compensation plans. Not surprisingly, the more the CEO touted the need to radically alter "the way we do business with our customers, suppliers, and each other," the more skeptical and distrustful employees became. Greater involvement was seen as "another ineffective human resource program" at best and as "another management ploy to get us to work harder" at worst. The CEO and his staff, along with human resources managers, slowly yet tenaciously continued to elicit greater employee participation. It took about 10 years for employees to "come around." The main lesson here is that the reversal of deeply-held attitudes takes years to accomplish because it took at least that long to form and solidify them in the first place.

7. Focus on broad, strategic issues. As alluded to above, the least effective employee involvement efforts in general and in compensation in particular are packaged as programs or "employee relations flavors of the month." Employee involvement in compensation should support and reinforce an organization's overall shift to a more participative culture. Top executives need to take the strategic view when it comes to employee involvement in compensation because the process is really a transformation in the way compensation is designed and managed over the long haul.

A family-owned business employed 200 people. For years, the CEO managed the company like a kingdom and made all the decisions, whether they were important or menial. In part due to a massive turnover among his direct reports, the CEO decided that he needed to change in his management style (and thus the culture of his company) from highly autocratic to more democratic. Teams of managers and employees were formed to tackle various problems. Not surprisingly, during the first year of this dramatic shift, it was very difficult for this CEO to give the teams sufficient latitude to make decisions. However, when he was influenced to focus his attention on strategic issues facing the company, he reverted less to his old behavior of meddling in everyone's affairs. Ultimately, he concerned himself primarily with overseeing that the work of the various teams (including the one that dealt with pay issues) linked together and supported the strategic objectives of the business. The tactical, day-to-day operations were delegated to the

members of the teams on an ongoing basis.

Implications For HRD Research

This study probably raises many more questions than it answers. Among the key issues to be addressed by further research are:

- Why do organizations choose to involve employees in designing and managing pay systems?
- When and under what circumstances was this initiated?
- How was it accomplished?
- Which approaches worked best? Why?
- Which were less effective? Why?
- How are "success" and "failure" in employee involvement measured?
- Are organizational size and line of business truly unrelated to the nature and extent of employee involvement in compensation, as found in this study? If so, what other demographic characteristics (for example, business life cycle stage, financial performance, market diversity, age of organization) are related?

It is hoped that continued research in this area will eventually lead to more rigorous empirical testing of specific, theory-based hypotheses.

Along with additional research, what organizations learn as a result of undertaking employee involvement in compensation can help to answer these questions. To this end, HRD professionals, compensation specialists, and line managers are encouraged to share their experiences (both positive and negative) with one another.

Conclusion

Compensation, when viewed as an isolated function, is considered by some to be part of HRM's role. However, this study is relevant to HRD research and practice for many reasons. Two major ones are: 1) employee involvement requires *substantial developmental interventions* at the individual, group, and organizational levels in order to succeed, and 2) numerous scholars and reflective practitioners have repeatedly called for the *integration of HRD and HRM systems* in order for any single HRD or HRM process to succeed.

Examples of the above two issues which seem pertinent to this study include linking relevant reward systems with management and employee development efforts, career development programs, and large-scale organizational change initiatives such as TQM, self-managed team structures, creation of a learning organization, and process re-engineering, to name but a few. HRD researchers and reflective practitioners who are interested in employee involvement may need to enhance their understanding and appreciation of how the involvement process fits (or *should* fit) with other HR systems, including but not limited to reward systems.

Advocates of employee involvement in compensation design and management claim that it would result in more effective pay systems. This is based on the premise that employees will contribute to improving their organization's pay systems if they are granted some responsibility and recognition for doing so (Lawler, 1990). These ideas have apparently not been subjected to rigorous empirical scrutiny. Nonetheless, they may be intuitively appealing to HRD researchers and practitioners. However, the results of this study suggest that many managers and compensation specialists are not yet willing to share some of their compensation system responsibilities with employees. Perhaps some of them would become more willing if HRD would become more involved in reward system issues.

At the same time, this study uncovered a critical mass of employees who *do* participate in the compensation arena. Some of these employees have significant responsibilities for formulating and improving pay systems. Such involvement is a powerful way of displaying an organization's authentic dedication to employee empowerment. Moreover, it can be a viable mechanism to optimize the return on the considerable financial investment organizations make in their human resources.

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Notes:

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Involving Workers in The New Learning Environment Required for a High-involvement Organization: The Workers' Perception

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To meet the new challenges of global competitiveness, organizations must dramatically raise performance and productivity. This requires substantial workplace reorganization combined with new worker skills and abilities. Such change must come broadly and strongly enough to break the old culture on the shop floor and create a new learning environment. Workers who are motivated to be actively involved in this new learning environment, can be the catalyst effecting the change to a high-involvement organization.

The parameters for competitive success have shifted to a new global marketplace in which resources are easily transferred or duplicated worldwide and low-skilled, low-wage workers are readily found. America's well-paid life-style can be maintained only if performance and production can be raised to a level equal with that pay and this can be done only with workplace reorganization and new worker skills and abilities (NCEE, 1990.)

This reorganization requires a transformation of the workplace that puts special demands on production workers. Workers are required to change their perceptions of their jobs, their work behavior, and the learning, skills and abilities they bring to those jobs.

In "high-involvement" organizations workers on the production floor are expected to be more flexible in work assignments, be responsible for work previously done by supervisors or inspectors, and become active members of decision-making teams. Edward E. Lawler (1985, 1986, 1992) found that worker participation and motivation are crucial factors in the success of workplace transformation. Workplace transformation requires workers who are motivated to be actively involved in a new learning environment. "People are motivated to perform an action when they perceive that the consequences of the action are favorable to them; that is, when they perceive that they will achieve goals or outcomes that they desire" (Lawler, 1986.)

This research centers on the fact that while workers are required to change the whole comprehension of their job, their work behavior, skills and abilities, there is little understanding of production-line workers' perceptions of these changes and its effect on motivation to become actively involved in a new learning environment. The primary focus was to examine, how production-line workers' perceptions of the transformation to a high-involvement organization and to training involved in that change, affect their motivation, participation, adaptation and learning.

This paper is based on an ethnographic study of workers who volunteered to participate in a training program at a manufacturing plant in transformation to a work cell arrangement and an effort to restructure the workplace into what Lawler (1986) has called a "high-involvement" organization. The specific focus is on acquiring an understanding of the learning experience and economic perspective of workers taking part in the organizational change. Data was collected through participant observation at the plant, in-depth interviews, observation of classes and shop floor activities, and from a focus group.

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The Need For A New Learning Environment

Trainer/engineer Don Riley explained the program he initiated at the Gansett manufacturing plant as part of that transformation:

> ...[In my job] I look at how we make things, introduce new technology and new products and machine tools into the company. ... I carpool with another project engineer. We started discussing some of the problems with new technology, lack of skills in the workplace, ... and I thought it was long overdue to do something.

There was a lot of frustration on the shop floor...." The workforce was evolving into "a bunch of button pushers" with all the technological knowledge found in only three or four people. "We had an awful lot of downtime because you can't be everywhere at once." It was obvious that something had to be done to get the operators involved in problem-solving.

Responding to an increasingly competitive global market, companies have moved to the development of a high-involvement organization, delegating decision-making to production workers on the shop floor. Production workers' roles have been broadened to include decision-making responsibilities and authority commensurate with proper training and skills. The transformation of an established industrial workplace is one of the most challenging ventures in human resource development today. It involves redefining jobs and recasting the work environment to become more competitive.

These changes mark a significant departure from the requirements and expectations of the old-style Taylor model, in which "Managers are the ones who are expected to think, coordinate, and control" (Lawler,1992, p. 26.) Firms are pressing workers to meet the special challenges of being better educated, thinking critically, working as members of a team, taking responsibility for problem-solving, and making decisions.

Conversion to high-involvement runs counter to the very basic message that has been given to workers and managers since the introduction of mass production. After decades of organization as a Tayloristic production line, the shop floor has developed a culture of its own. "Culture" is the pattern of basic assumptions developed as a group learns to cope with problems. When these assumptions work well enough to be considered valid, they will "...be taught to new members as the correct way to perceive, think, and feel (Schein,1985. p.9). In a mature organization, leaders cannot change culture on their own. They must listen, in order to involve the group in reaching its own insight into the need for change and become willing to participate in the change. "[I]n the end, cognitive redefinition must occur inside the heads of many members of the organization and that will only happen if they are actively involved in the process" (Schein, 1985. pp. 324-5).

The Learning Experience at Gansett

For the workers who volunteered to participate in this training program learning is an evolving process, as plant needs change and workers' knowledge matures. Whatever their perceptions of education were at the start of the program, the Gansett trainees are now life-long learners with a "systems" view of scholarship.

Education Not Training. While this research centers on workers in a "training program" the implications of the terms "education" and "learning" must be noted. Traditionally, much corporate training involves instruction in the simple tasks needed in a Tayloristic production process. Coping with the human element has always been an arduous facet of manufacturing; Taylor dealt with this by taking most of the human factor out of the job. Training is often an afterthought, done, informally on the shop floor, with little interest in any learning beyond acquisition of a required skill. Yet, if workers are to take their place in high-involvement

organizations they must be educated far beyond this.

Now, the thinking is that the effective use of advanced manufacturing requires workers with skill, and also, understanding of the more generic concepts of the entire plant perspective, such as teamwork, and the development of learning skills. The question of what workers should learn is becoming increasingly difficult to answer as jobs become more complex and firms want more flexibility. Companies, such as Gansett, are quickly adding computer-controlled equipment, while at the same time giving operators more duties and expecting a great variety of skills. Workers must stay abreast of rapidly changing technology and cope with greater responsibility. On a visit to the Gansett shop floor an observer would see people many professionals might think off as riffraff running half million dollar CNC (computer numeric control) machines that turn rough casting and simple stock into complex finished product. It would be obvious that workers are learning techniques that have never been practiced on the shop floor before. The new training goal is to train workers to develop, as technology continues to change (Ashburn, 1986; Beard, 1991a; Beard, 1991b). Today, any "training" program must be judged in terms of empowering workers with direct responsibility for decisions affecting production and quality (Carnevale, 1991).

The Introduction of The Training Program to Gansett. The move from the simple, repetitive work of the mass-production shop floor to new technology and new work organization has forced the new commitment the training of production workers.

The popularity of talk about building a smart competitive workforce not withstanding, workers' perceptions gives a critical twist to the coming of the latest skill training to Gansett. There is a consensus on the shop floor that Gansett's management made a mistake and assumed that new production technology would reduce the need for operator skill. The production engineers and trainees see the opposite of that assumption as true. An engineer, studying with the advanced class, told this story of Gansett's move to training:

> They [management] thought CNC [computer numeric control] machinery would end the need for a skilled workforce on the shop floor and it doesn't. If anything, it increases it in certain areas.
> The CNC machine. ...its a wonderful tool but you need good operators. They're not just button pushers, they have to be able to diagnose problems.... ...know how to correct a problem and even get in and edit a program...

Willy, a machine operator with 15 years at Gansett and many more in other manufacturing environments, explained the company motivation for training in this way:

> ...they found that going to the outside ...they couldn't really get the people they wanted with the qualifications they wanted so they decided to go to the resources that they have in-house....
> ...if they don't continue with the Workforce program, with the education, somewhere down the road they're going to have serious problems....

The wisdom on the shop floor is that training has been forced up into the company. "It came from the floor up, not from the top down." In Don Riley's view:

> The need came from the shop floor, created with the help of the shop floor. I went [to the production workers] to find out just what to teach and where we wanted to go with the training. I got a lot of input from the individuals on the shop floor, who were running the processes at the time. They were the ones that badgered the living daylights out of their supervisors.

The Evolving Nature of The Learning. Don feels that training has been in a process of evolving as shop needs changed and knowledge developed. After three years, he feels "Now I'm at that crossing point with the training ...where are we going?" He wants to make sure that goals are very clear-cut so that everyone in the program, "...knows what those goals are and

can achieve them." One thing he feels strongly about is that people comprehend that "...a better understanding of the world of machining" is not the final goal. "I want successful people."

The evolving nature of training at Gansett and the goal of personal success for the trainees is clearly seen in the newest development on the agenda. Don and another engineer have gone out and bought a course that will certify the graduates in CNC programming. The program will be offered to workers who have completed the advanced class. It will be run in a meeting room at Gansett but not on company time.

Don's personal objectives for this new course are interesting. "I want to give them something for the time that they have given me". Beyond that, the goals include: giving the trainees the opportunity to keep learning, improving ability on the shop floor and, one that seems most important, "...start using you human resources correctly ... or lose your skilled workforce." Don's idea is that if the workers' skill is not appreciated at Gansett they will have the credentials needed to move on.

Don's objectives were interesting in light of impressions acquired while interviewing, observing the training classes and visiting the shop floor. At this stage in their personal development, the majority of trainees want to keep learning. They have become "adult lifelong learners" with particular interest in what they see as their profession. John Dewey (1916) wrote; "Real education starts after we leave school and there is no reason why it should stop before death." In class, trainees were quick to offer both functional and hypothetical illustrations of the topic at hand. On the shop floor, machine operators were observed reading machine shop manufacturing magazines while "baby sitting" their high tech equipment or while on break.

A trainee in the basic class offered literature citations from trade machine journals. He noted that one article on cell working groups would be of particular importance, and would be useful in comparing the factory in the article with Gansett. He had read the journal "...after finding it on the foreman's desk." During class breaks and on the floor, trainees often wanted to talk about global competition and Japanese human resource use, referring to what they had read or seen on television. Public television and shows like "Sixty Minutes" were often cited as good sources of information. There was a great deal of interest in my investigation. Other trainees answered questions on their reasons for volunteering for the classes saying that they take any class offered. "You can never learn too much" was a common explanation.

A question I pondered was: "What happens to these people if there isn't any more to learn at Gansett?" Perhaps once you get people started down this learning track you have to keep giving them more to keep them motivated and challenged.

I shared with Don my concerns about what might happen to learning after the classes were over. He agreed and said that his professional career followed a path of moving on to another company whenever a job stopped offering new challenges and new technology to master.

A goal of the instructors is to give the trainees confidence on the shop floor. The students revel in that directed confidence. You can see and hear joy in their learning during the class. They like to tell Don what has been going on, on the floor and how what they learned works.

Matt shared this story with fellow members of the basic class during a break:

> I'm getting the knowledge that, I don't think there were many people in here who were freely giving. I can give you an example .... It helped me a whole heck of a lot. We kept having these cap problems...ever since I've been in this department...13 years. Now, Don is telling us that, through studies, it doesn't matter if you've got...80% thread or 60% thread, the pull-out power is the same. So as soon as I learned this, I changed all my drill sizes, ...and never had a problem with the caps again. Now we can stop going by trial and error.

Don builds on the trainees interest in their own work by building plenty of practical application into his teaching. In the older NC (machines controlled by punched paper tape) area, they were having problems with tapping aluminum magnesium. "Even though it was the basic class, I knew one of the things I had to do was solve that problem for them." Class time was used

to teach the students from that area how to determine the correct way of drilling and tapping aluminum magnesium and the correct tooling. "They haven't had a broken tap in probably nine months, where they used to break a tap every 10-11 pieces." Shop talk is that the foremen "...know that they can knock down their loss time on jobs by 80-90% just by running it through the trainees."

An important part of Don's training philosophy is that people from the floor, engineers and production workers, should do the training. Don sees very little respect for the practical application of training run by the personnel department. From his perspective, the introduction of work cells as production units at Gansett made that clear to management. "What the cells did was sell the idea that the people who should be doing the training are the people who introduced the technology, not the personnel department."

Training Style. The old training of operators involved "do as I do" training, with no theory or explanation. This training, which involved disciplining workers in simple, repetitive tasks, was typical of that done to support a Tayloristic production process. There still is some of this training going on at Gansett and the program being studied has some procedural training in it.

Don compared his training classes, which teach both practice and theory to the old teaching. Training was done by a worker or foreman:

> We had pretty much 'do as I do' type training, with someone who may, or may not, be qualified to operate the machine correctly, showing another individual, who probably has never seen the machine before, and has no understanding of its workings, how to run it without hurting himself.

Hands-on training, problem-solving and a variety of operating skills are seen as important by the trainees. Learning applications seem of special importance to less experienced trainees. Sue, a young woman in the basic training class who has a packing job, said; "If you could actually see this working the way he's telling us, I think it would have helped me, anyway, a lot."

Procedural training has become very individualized and specifically, problem-oriented within this program. Malcolm S. Knowles (1984) asserts that the best environment for adult learners is a non-authoritarian, less formal, cooperative atmosphere; the instructor's role would be that of facilitator, catalyst and guide, in a process built around what the learners feel they need to know (Bell, 1989; Knowles, 1984, 1989a, 1989b; Zemke & Zemke, 1988). This would be an apt description of how Don Riley runs his training program.

When asked about the idea that practical application was a very important part of the classes even when theory was the topic, Don agreed and gave this illustration. The start-up of the cell work organization provided Al, the engineer who introduced the cells to Gansett and Don, with a chance to offer practical conceptual skill training. Under the guise off having to go to the cell to work on a CNC program, they began training on the shop floor. Don told this story:

> We spent almost full-time for three months working with the two operators and really bringing them up to speed. We were teaching what a good drill looks like, why different drill geometries, why you use this end mill as opposed to another end mill, what's a 20% carbide insert, a lot of things were not associated with their job, but we wanted to make these people knowledgeable, as quickly as possible.

Don is very proud of the fact that "They're both lead people now in their area." "Lead" production workers are designated by the company as resources for information and assistance for others on the shop floor.

The literature raises important questions regarding positive transfer of training to the job. The obvious rationale for worker training is the belief that students will effectively apply the understanding, skills and views from class to the shop floor. However, the degree to which this takes place is often not clear. The degree of learning transferred to the job is said to vary with both training style and the acceptability of the new learning within the company and within the trainee's

own department (Baldwin & Ford, 1988). However, it is clear that Don's training style and the workers acceptance of the new learning generates a high level of transfer. In those departments where Don and engineers working with the training have clout or where the foreman is approving, that learning is effectively applied: in other departments it may not be.

The New Learning Environment

The workers at Gansett are changing their job perceptions, their work behavior, skills and abilities, there is motivation to become actively involved in a new learning environment.

Lifelong Learning. Although learning is sought for a variety of reasons, the customary judgment is that, for adults, learning is usually not sought as its own reward. Learning is most often a means to an end. Yet, many adults do study for the sake of learning itself (Zemke & Zemke, 1981; Merriam & Caffarella, 1991). Among this group of self-selected trainees, learning for learning's sake and for gaining credentials for financial gain or, to help land a new job after being laid off, are of about equal weight as reasons for taking part in the training. Lifelong learning, the practice of continuously and purposefully acquiring knowledge formally or informally, in order to maintain or improve an employment edge or for personal improvement, is characteristic of the Gansett trainees (Schfritz, 1988.)

Sharie was a ninth grade dropout because "...school was boring and didn't have anything to do with life." After leaving school, she became pregnant and married. After two more children, Sharie had become weary of household management. Her brother-in-law worked at Gansett and suggested she get a job there, as a packer. Work seemed to kindle an interest in learning for her. Sharie completed her GED through a program at Gansett and worked her way into Don's training program . She is now a coordinator who takes responsibility for much of the production planning in her department. In an interview, she talked about hurricane Andrew's effect on the demand for her department's products. Although the coming of Fall usually meant a cutback in hours worked in her department, Sharie convinced the foreman to keep production levels up because of rebuilding that would be taking place. Sharie also trains operators on the shop floor. In the Gansett training program, she joined in helping build what looked a lot like Peter Senge's "Learning Organization" "...where people continually expand their capacity to create the results they truly believe in (Senge, 1990a. p. 3.)." She is in the program:

> ...because you never know too much. It's always good to learn something. I know my job, I know what I'm doing, but you can get stagnant doing things. I always volunteer to learn something new. You never know. It'll always come in handy sometime. Life doesn't end in that department. There's always a second step to go.

There is some element of learning for learning's sake in the practice of workers who are doing well in piece work. They will take the training and apply the proficiency learned to their job, but resist moving to cells which are seen as lower paid. Matt, a student in the basic class, claimed that he had no interest in going into a cell to work. However, he loved to talk about using the power his new knowledge gave him in his current job. He clearly felt that the class had given him more practical understanding of his work than his foreman had. The foreman is impressed with Matt's learning. Matt said this about what training had done for him:

> Now I just go right up to the methods engineer and say, "Look, I have this problem...and I think...." ...I'm sure if I point it out to him he's going to say, "Yeah, you're right."

Trainees are pleased about using their new skill and understanding on the job. Mary Jane said:

> I think most people realize that you have to repaint and re-look at things because they are done differently today. You have to keep up with it. [This class]...is related to a lot of things I deal with. ...I help and teach certain aspects of it, which is fun, a lot of fun because you really feel responsible....

The feelings and reasoning of these Gansett trainees exhibit what adult education theory infers. Building or maintaining self-esteem is often a strong motivating factor, along with job advancement. In addition, the application of learning to relevant problems and integration of new and already known ideas is important, (Zemke & Zemke, 1981; Merriam & Caffarella, 1991).

When Bud was asked in what way the training had helped him most he said, "I communicate better with the engineer directly.... You can take an engineer and sit down, understand what he is saying, and the engineer is going to understand what you are trying to get across." However, when asked about decision-making he replied, "Now I can explain a little more, in detail, what the problem is, and it does work, but to saying you have more decision-making in the area, no." A key facet of job enrichment is responsibility combined with the supporting authority. To the extent that Bud's perception is typical of practices in his department there is a barrier between his learning and its application. Don has complained of such barriers.

Theory, as well as personal experience, teaches that adults have an aversion to the risk of new behavior before peers. Yet, they openly bring a great deal of experience to class, where sharing it with fellow students greatly advances learning. Social and cultural influences play a crucial role in adult participation and success in formal education such as corporate training (Zemke & Zemke. 1981: Merriam & Caffarella, 1991). These points were obvious from observation of training class interaction at Gansett. Training classes provide a source of social relationships. Sue, coming from a very low-skill job, credited a skilled worker in her department with talking her into volunteering for the program. She had this to say about her fellow students:

> I don't know any of these people here, but they're all...a lot of fun. ...and they don't knock you down, although I feel stupid if I ask questions. ...they're always willing to help...explain.

Bo talked about more skilled trainees who brought sample problems to class from the shop floor:

> ...that's good...somebody [with less experience] they ask the question any one of us will answer them.... I've never seen where somebody's "I'm better than you. Why should I bother?" Everybody has been very cordial.

On the shop floor, the training class camaraderie was obvious. Visits to one work area always yielded recommendation of where other classmates were working and assurance that they would be glad to show me around their area and demonstrate their job. Whenever the conversation turned to the class, comments were enthusiastic and respect and appreciation for Don and his style were expressed.

Trainees contended that they do not talk much about the training and their new skills with workers not in the program. Although there is some talk about support from friends and family, that was minimal. Both the impetus and enjoyment associated with training and new skills is self-motivated. Trainees acquire their feelings of satisfaction from their own work, but also from others in the program or those who have gone through it. There seemed to be a feeling that those outside the program did not appreciate or were not interested in hearing about the training. Some trainees feel that Gansett people, outside the program, have a negative attitude towards it.

Systems Learning. Peter M. Senge makes the point that companies and all human endeavors are systems, not unlike rainstorms and other natural designs. As a part of the lattice, it is very hard for the individual to see the whole pattern, to see beyond an isolated part or specific task. Trainees are pleased with their learning and the use of their own skills. They also like using their training as a source of responsibility and authority and to see their job as a part of Gansett. For Senge, "systems thinking" is the integrating skill that fuses other skills together. Interviews

and observation revealed that, for many of the trainees, learning was arousing that kind of thinking.

Bo talked about the fact that production issues had replaced sex and sports as break time topics for trainees:

> ...they're allowed to use their minds a little bit, kicking the cobwebs out.... ...these guys love this course, jogging and getting their minds active. They say, "Let me look and see what I'm really doing" versus "I'll just do it" They've caught a lot of things...that should be straightened out, where, without this course, they never would have never.... [Before] it was " If it works, it works." Now it's, "It can be better why do it this way?"

Gansett has a reward program in which employees win by suggesting production improvements and solutions to problems on the floor. The members of the cell that Dave works in, all trainees or graduates, spend their lunch time working on proposals to submit. When out of issues in their own cell, they visit other departments looking for problems to work on.

Workers in the program are pleased with their knowledge and the use of their skills and with working and studying with others who now have similar understanding. In talking about learning, they fuse their skills with the change at Gansett and with the change in the global economy. While there is an expected financial component to the seeking of knowledge, they also want to learn for learning's sake.

Rev. William T. Cunningham, the founder and executive director of "Focus: HOPE", a Detroit human rights organization that has become a bench-mark for modern workforce development, writes: "Training has to prepare a work force to make change happen" (Albert, 1991). Gansett's training program will have to be judged on this kind of standard.

Summary and Conclusions

The transformation of an established industrial workplace is one of the greatest challenges to human resource development today. It marks a most significant departure from the requirements and expectations of the old-style Taylor model. Conversion to a high-involvement workplace runs counter to the very basic message given to workers and managers since the introduction of mass production.

Workers connect their willingness to accept and participate in this workplace transformation to their views of the causes and effects of the change. Their learning is an evolving process, as needs change and knowledge matures. The trainees, in this program, are now life-long learners with a "systems" view of work.

The effective use of advanced manufacturing requires workers with skill and also understanding of the more generic concepts of the entire plant perspective, such as teamwork, and the development of learning skills. The firm is giving operators more duties and expecting a variety of skills.

The trainees embrace empowerment, responsibility and learning. The drive of these volunteer trainees for new skills and learning is self-motivated. They are pleased with their learning as a source of capability and influence, and with their job as a part of a system. They integrate their learning with the changes at work and with the change in the global economy. They seek learning for the financial component but they also want to learn for learning's sake.

"If we don't pick up on our manufacturing skills, we'll be left behind.... ...won't be here twenty years down the line unless we smarten up." This is a view of today's labor market reality from the perspective of a woman in the training program. The trainees show great interest in issues of income, job security, company policy and workplace organization. They think about and talk about Japanese production and management methods along with the broader issue of the firm's and nation's competitiveness. The participants in the training program understand that their economic reality depends on the success of the company's transformation endeavor.

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Workers express multiple motivations for learning and taking part in the workplace transformation. Incentives range from earnings and personal respect to national economic well-being. Managers and scholars should keep this multiplicity of personal reasons in mind when promoting or studying organizational change, with an eye to advancing workers skills and involvement in their jobs .

Some findings from this research valuable to those using training to facilitate workplace transformation:

- In the transformation to high-involvement transformation, learning is an evolving process.
- The trainees want to keep learning. They are "adult life-long learners" with special interest in what they see as their role in a profession and in a system.
- There is a desire on the part of the workers to be more directly involved in the change in their work environment and to have management be more appreciative of their perceptions, knowledge and interest.
- Those involved in the changes find ownership in originating what they see as a grass roots effort.
- Workers see work reorganization and high-skill training as meeting their own needs and demands.
- Workers see training and learning as personal investing, but they tie the need for that investment to changes in the global economy.
- Workers, involved in the change, want to be recognized and rewarded based on the contribution their new skills, abilities and responsibilities yield.

These findings concur with research on what is significant in breaking the culture of a mature organization (Schein, 1985.) Production workers' education, which becomes part of a new learning environment can be the catalyst effecting the change to a high-involvement organization.

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What Do First-line Leaders Need to Succeed?: Identification and Validation of Competencies of First-line Leaders in High Involvement Organizations

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Increasingly, organizations are seeking competitive advantage by adopting "high involvement strategies." As organizations make the transition to these methods, however, supervisor resistance increases. Supervisors are not rewarded for helping teams succeed, nor are they provided with the training necessary to succeed. This study examined the issue of how to identify and validate the competencies of first-line leaders in these organizations. A literature search, focus group discussions, and surveys yielded a list of eight competencies.

A significant shift in the management paradigm is taking place in many North American businesses. Large numbers of organizations are taking a new road to increased productivity by discarding old, hierarchical management methods in favor of "high involvement" strategies (e.g. teams, TQM, peer review). This shift is taking place because of a number of factors, not the least of which is competitive pressure from other parts of the world (Reich, 1988). Schlesinger (1983) has documented other forces moving companies toward high involvement methods: the increased education level of entry-level workers, the increased aspirations of these workers, increased managerial concern for productivity, and a growing belief that greater worker participation will lead to increased worker satisfaction. In a survey of 845 line managers, Industry Week and Wyatt Co. (Moskal, 1991, January 21) found still more forces encouraging this shift: the need to increase employee commitment; encourage innovation; push accountability downward. Changing employee values and corporate cultures, the need to improve employee retention, and reduce management layers were also cited as reasons why many organizations are looking to new methods for managing their businesses.

While these forces are pushing organizations to change, however, countervailing forces are standing as barriers to this change. Supervisor and manager resistance to high involvement methods is one of the greatest of these barriers. Walton and Schlesinger (1979) documented three significant supervisor-related barriers: the skills needed by supervisors to succeed in the new high involvement organization are consistently underestimated; adequate skill development is not provided for supervisors trying to make the transition; and reward systems fail to tie supervisory evaluation to team development. In addition to failing to give adequate support to supervisors in organizations changing over to high involvement methods, Harrison (1992) found that supervisors are frequently left out of vital phases of the implementation process. In Harrison's survey of 30 companies, 17% of the supervisors responding said they were not involved in the implementation of high involvement methods, while 23% said they were involved only in the implementation of the change, not in the planning of the change. Klein (1984); Manz, Keating, and Donnellon (1990); and Lawler (1990) have all reported similar reactions to the installation of high involvement systems.

This paper will examine the question: What do first-line leaders (supervisors, leads, foremen, team leaders) need to succeed in a high involvement organization? To answer this question, characteristics of high involvement management methods will be described. The paper will then proceed to outline a research project sponsored by Employers Association, Inc. of Minneapolis, MN. Methods of this project and the results of the project will be described. Finally, conclusions and implications of the study will be offered.

Characteristics of High Involvement Management

Mohrman, Ledford, Lawler, and Mohrman (1986) have stated that the high involvement "paradigm has not yet become a well-established or completely coherent alternative to the traditional management paradigm" (p. 190), and is, therefore, difficult to define. The term "high involvement"

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is often defined in relation to other management practices. Mohrman et al. (1986) related high involvement to "quality of work life" (QWL), "employee involvement" (EI), and "sociotechnical design." They cited six tenets of the high involvement paradigm. The first is that power should be shared with the lower levels of the organization. Second, they stress the ". . .importance of open communication in organizations and [the movement of] operating information to lower levels" (p. 191). A third foundation of the high involvement paradigm is the development of skills and abilities of workers. In a high involvement organization, the mission of training goes beyond giving workers skills for their immediate job. In addition, workers are cross-trained in the jobs of their peers as well as in some management skills: interviewing, conducting performance appraisals, disciplining inappropriate behavior. A fourth tenet of the high involvement paradigm is that rewards are based on organizational performance and should be awarded to all levels of the organization, not just the executive level. A fifth tenet asserts that "stakeholders" in an HIO include customers and employees, as well as the traditional stakeholders, i.e. "owners." Sixth, the HIO strives to design all of its subsystems--training, work design, rewards, information, and so on--so that all of these subsystems work in concert. This is an important point of distinction between high involvement organizations and organizations which use selected employee involvement tactics. The high involvement organization recognizes that an employee involvement tactic, (e.g. self-directed work teams), can be undermined by subsystems which are not designed to increase employee involvement. For instance, the compensation system in the organization may encourage competition between employees instead of cooperation, thus blunting the involvement benefits of the team approach. In the high involvement organization, subsystems are focused on motivating workers, giving them the information they need to do their jobs, designing work that is motivational, and giving workers the autonomy they need to do their jobs.

A synthesis of these perspectives on the high involvement organization yields these fundamental defining characteristics of a high involvement organization:

° All subsystems of the organization should be designed to maximize worker motivation, ease information transfer, and flexibility to meet the demands of the environment.
° Rewards for work should emphasize the intrinsic value of the work. Monetary rewards should be based on organization-wide performance, and should be distributed as widely as possible within the organization.
° Information must flow freely from the environment into the organization and from one part of the organization to another.
° Self-regulation of oneself and self-leadership of the team is essential.
° Power and authority are distributed throughout the organization based on practical, not bureaucratic, principles.

Operationally, high involvement methods include combining a wide variety of innovative management methods into an integrated system in which all methods support each other. These methods typically include: annual performance appraisals, in which there is substantial employee input; career counseling; suggestion systems; experiments using employee ideas for system improvement; "state of the business" meetings; education for employees on how the business is measured; cross-training; information exchange meetings; direct feedback from customers to employees; feedback from employees to vendors and suppliers; employee-made operating decisions; employee participation in hiring decisions (Lawler and Mohrman, 1989). In a survey conducted by the Association for Quality and Participation (1993), 711 members of the association reported that the use of these and other practices ranged from 53% ("autonomous work groups") to 3% ("peer reviews").

As an organization implements these high involvement methods, first-line leaders ask, "What is left for me to do?" Walton and Schlesinger (1979), and more recently Lawler (1988, 1990), have documented that, as organizations shift from hierarchical management to high involvement methods, more responsibility is placed in the hands of teams. Sabier (1990) has extended this trend to the point that, in organizations with extensive use of high involvement methods, traditional supervisor functions of hiring, firing, delegating, training become functions of the whole work system, not just a class of workers. In such a transition, the role conflict of the supervisor, who has traditionally been "caught in the middle," becomes even greater. The results of this study will suggest some new directions for supervisory work and development.

Methods and Results

This study focused on the questions, "What are the competencies needed by first-line leaders in high involvement organizations?" and "Is there a difference in perception of these first-line leader competencies among first-line leaders, their employees, and their managers?" To answer the first question, a three phase process was followed: (1) literature search; (2) focus group discussions; (3) surveys. To accomplish the first two phases, a subject matter analysis (Swanson and Gradous, 1986) was conducted to gather information from the high involvement literature, as well as from companies actually using high involvement methods. Fourteen articles from the literature were identified which listed discreet competencies of first-line leaders. A preliminary synthesis of these articles yielded seven competencies. The researcher then contacted sixteen companies which had received site visits from the Minnesota Council for Quality within the previous three years as part of the selection process for the Minnesota Quality Award to determine their willingness to participate in the study. Five companies agreed to participate by making groups of employees available for focus group discussions of first-line leader competencies. These focus groups generally had 8 to 10 participants, at least 50% of whom were first-line leaders. Each focus group was asked to generate lists of duties and tasks of first-line leaders in their organizations, the outputs of the first-line leaders job, and the knowledge, skills, and abilities needed by first-line leaders to do their job. The focus groups' lists were compared with the lists found in the literature and a final list of eight competencies was developed:

Boundary Management Skills- the ability to establish and maintain healthy boundaries between team members and between teams.
Human Resource Management Skills- the ability to carry out management duties- planning, organizing, controlling, staffing, delegating, evaluating performance- and teach others how to carry out these duties; the ability to analyze the skill and career development needs of others; the ability to support the process of creating, implementing, and evaluating training programs.
Inclusion, Affiliation, and Integration Skills- the ability to help employees feel included in the business of the company; the ability to build strong ties of loyalty between employees and the company.
Mentoring Skills- the ability to encourage workers to use essential elements in self-management.
Personal Qualities- flexibility, trustworthiness, endurance, willingness to admit that one may be wrong, patience, sense of fairness, resiliency, realism, up-beat attitude, organization skills.
Quality Skills- knowledge of quality processes, including problem-solving, statistical process control, the use of Pareto diagrams, action planning, and evaluation of quality improvement projects.
Support Skills for Innovation and Change- the ability to encourage, solicit, and implement employee-generated ideas of system improvement.
Team Facilitation Skills- the ability to form and support teams in the workplace.

Phase Three (Survey) was accomplished by asking six companies to distribute a four page survey to a randomly selected group of their employees. Three levels--first-line leaders, their employees, and their managers--were to be represented. The results of the surveys are presented in Tables 1 and 2. To answer the second question of the study pertaining to different perceptions of the first-line leaders job, a fourth phase (Analysis) was carried out. This phase involved conducting an ANOVA of the survey results to determine if there were significant differences in the perceptions of importance and skill needed among the survey groups. Using a criteria of $p < .05$, the survey results showed that the three groups did not have different perceptions of "importance," except in the category of "Support Skills for Innovation and Change." First-line leaders rated this skill significantly more important than the other two groups. As to perceptions of "skill needed," first-line leaders rated "Mentoring Skills" and "Team Facilitation" skills as requiring significantly more skill than the other two groups rated these skills.

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Table 1

Importance Ratings of Eight Competencies of First-line Leaders

Management	(n=23)	First-line Leaders	(n=64)	Employees	(n=206)
Personal Qualities	3.96	Personal Qualities	3.81	Personal Qualities	3.78
Mentoring Skills	3.73	Mentoring Skills	3.67	Mentoring Skills	3.56
Quality Skills	3.48	Support Skills for Innovation and Change	3.66	Human Resource Management Skills	3.55
Boundary Management Skills	3.44	Human Resource Management Skills	3.66	Inclusion, Affiliation, Integration Skills	3.54
Human Resource Management Skills	3.44	Quality Skills	3.58	Support Skills for Innovation and Change	3.49
Inclusion, Affiliation, and Integration Skills	3.30	Team Facilitation Skills	3.52	Boundary Management Skills	3.43
Team Facilitation Skills	3.26	Inclusion, Affiliation, Integration Skills	3.52	Team Facilitation Skills	3.43
Support Skills for Innovation and Change	3.22	Boundary Management Skills	3.45	Quality Skills	3.42

1=Not at all; 2= Minimal importance; 3= Somewhat important; 4= Very important.

Table 2

Skill Level Needed Ratings of Eight Competencies of First-line Leaders

Managers	(n=23)	First-line Leaders	(n=64)	Employees	(n=206)
Personal Qualities	3.91	Personal Qualities	4.03	Human Resource Management Skills	3.93
Mentoring Skills	3.91	Human Resource Management Skills	3.94	Boundary Management Skills	3.82
Team Facilitation Skills	3.82	Mentoring Skills	3.92	Inclusion, Affiliation, Integration Skills	3.78
Human Resource Management Skills	3.74	Support Skills for Innovation and Change	3.84	Quality Skills	3.74
Inclusion, Affiliation, and Integration Skills	3.74	Boundary Management Skills	3.82	Team Facilitation Skills	3.72
Support Skills for Innovation and Change	3.65	Quality Skills	3.80	Personal Qualities	3.71
Quality Skills	3.61	Inclusion, Affiliation, Integration Skills	3.80	Mentoring Skills	3.57
Boundary Management Skills	3.61	Team Facilitation Skills	3.78	Support Skills for Innovation and Change	3.57

1= Basic; 2=Basic to Intermediate; 3= Intermediate; 4= Intermediate to Advanced; 5= Advanced

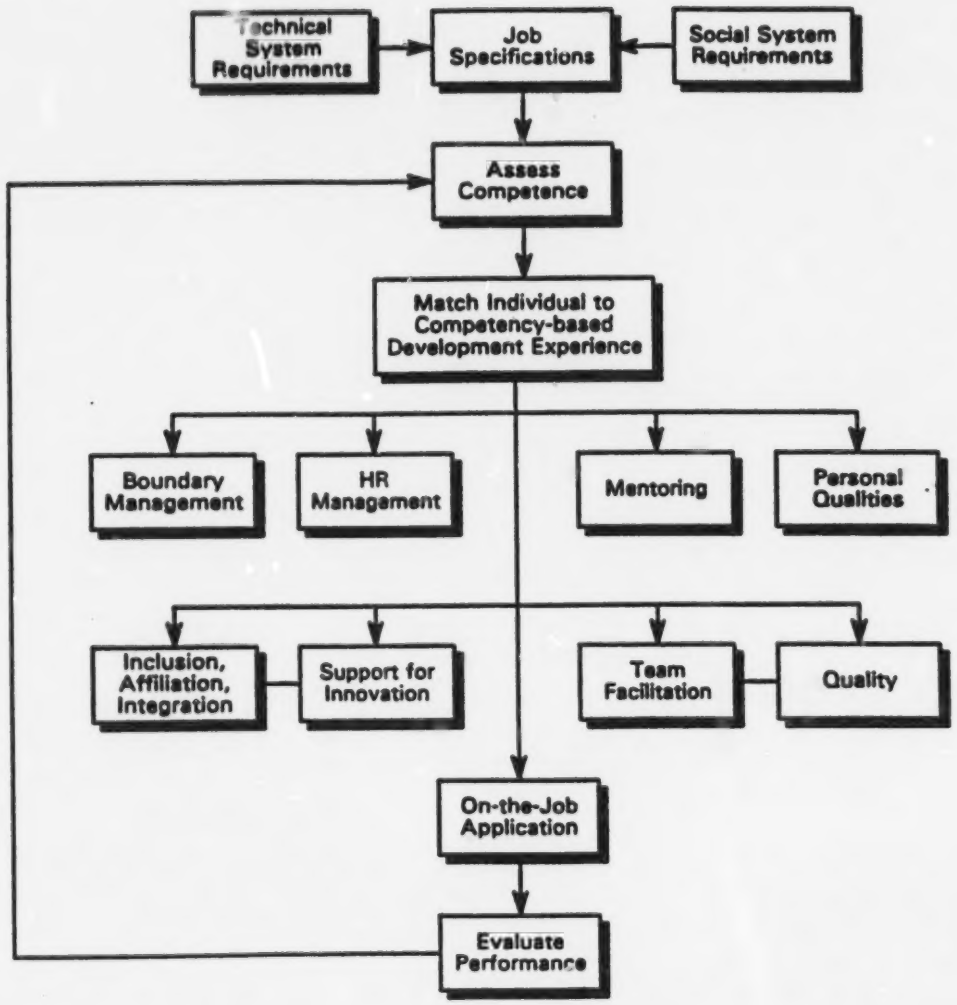

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Figure 1. Competency-based Human Resource Management System for First-line Leaders.

Conclusions and Implications

Drucker (1983, June 7) has said that "no other job will change more in the next decade than that of the supervisor; and no group is less prepared for this change than the supervisors themselves" (p. 28). The literature about high involvement organizations certainly suggests that these innovative organizations will require a whole new set of capabilities from first-line leaders. When the results of this study are examined, however, an evolution, not a revolution, is detected. Certainly, the skills of "Team Facilitation," "Quality Skills," and "Support for Innovation and Change" are consistent with the themes found in the high involvement literature. At the same, the skills of "Human Resource Management" and "Personal Qualities" harken back to the earliest writings on the role of the first-line leader (e.g., Federal Board for Vocational Education, 1919). These results suggest that even organizations which represent a high level of employee involvement retain the first-line leader as a key player in the management scheme. The results of this study imply a competency-based approach to developing first-line leaders, as suggested in Figure 1. The results of this study suggest that such an approach would be a fruitful one to follow for internal and extern HRD professionals.

As more data is gathered about the nature of high involvement organizations, it would do well for HRD professionals to gather more information about the role of the first-line leader in these settings, based on the size of the company, its industry, geographic location, history of high involvement practices, and pervasiveness of their use. As much as some would like to suggest the demise of the first-line leader, it appears the role will have to be played by someone and they will need training and development to carry out the role well.

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Validating a Check Sheet as a Guide For High-Involvement Training

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Practitioners who work with high-involvement work teams often need sources that will help them guide the development of a team from inception to completion. One useful resource would be a check sheet that shows the steps a high-involvement work team must complete in order to become fully functional. Stagic development of ten different production teams over a four-year period was analyzed to yield a check sheet that could be used to guide team development. Results indicated that the check sheet is effective in logging team progress and helping guide teams to effective behaviors.

High involvement work teams (HIWT) are one of the newer forms of work groups that have grown out of the Total Quality Movement in American industry (Brauchle & Wright, 1993). These teams are usually made up of production operators who have in common a work setting, a product or service, and a set of common production or quality objectives. Team members meet regularly to discuss productivity problems and issues of concern to them. They may make recommendations on processes, materials, machinery, or layout of equipment (Brauchle & Wright, 1992). High involvement work teams normally do not change the structure of the organization - they retain their supervisors and normally get things done through ordinary organizational channels. When necessary, however, they work directly with other groups in the organization, and may even interact directly with suppliers or customers. Such activities may seem unusual in a traditional manufacturing setting, and developing these teams to a high level of productivity can be challenging (Brauchle & Wright, 1994).

Practitioners who work with HIWTs often feel like they are on a road without a proper road map. There are no easily recognizable signposts on the way to high performance. This article attempts to remedy that situation. It describes, in step-by-step fashion, how we used and validated a check sheet to guide the development of HIWT from inception to completion (Brauchle & Wright, [In Press]). The check sheet (see Handout) identifies 20 major tasks necessary for the development of a truly high performance or high involvement work team. The check sheet allows us to identify each major task, or skill step, as the group attains it. Each step is described and explained so the practitioner can follow, identify, and log the team's progress. When all 20 skills are learned, the team is usually ready to be productive by working on their own. In this paper we discuss the steps we use for training high involvement work teams, and show how we validated the process.

1. Orientation

The orientation session is usually a formal session that brings together the work groups and the team builder. In the orientation session the team builder establishes rapport with the team by explaining the team building process that will occur. He or she puts team building activity into perspective as part of an ongoing process of quality improvement and cultural change in the business. Successes and examples from projects and activities of other teams are discussed, as is

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the role of various constituencies such as management, labor, the union (if one exists), and team members themselves. The check sheet for high involvement training is then reviewed. The orientation meeting is usually required of all workers in the group, but thereafter, participation in training is voluntary.

2. Demonstration of Meeting Procedures

After HIWTs receive their initial orientation, meeting procedures are demonstrated early in group process. Five major steps need to be covered in every meeting: Minutes, Announcements, Reports, Old Business, and New Business. Groups learn to value the group history and the decisions they have made by recalling these moments in a formal way from meeting to meeting. Announcements (e.g., the company picnic, changes in the organizational structure, a Christmas food and toy drive, etc.) keep the team up-to-speed on fast-breaking information items. Reports are vital: they reflect the progress that teams are making in terms of their participation on productivity and safety teams, steering committees, ad hoc committees, and the like. Old Business and New Business sections of the meeting will probably take the most time and we offer suggestions on how this can be internally organized.

3. Interaction and Team Building

The meeting procedures structure group interaction and foster team building. These procedures help to keep everyone on the same wavelength and work to accomplish group goals. Structuring interaction through formalized meeting procedures aids team building in that members talk and listen to the same items of business at the same time. Teams begin to appreciate working on a group agenda rather than on any number of individual "hidden" agendas.

4. Team Roles

Three group roles, at a minimum, need to be developed in a high-involvement work team: The leader, the recorder, and the facilitator. In our view, the HIWT leader is the individual who leads the group internally — the "within-team" leader; whereas the facilitator primarily exhibits his or her leadership talents external to the group. We believe each HIWT needs to have leadership in an outside of the group, and that this leadership needs to be performed by two persons (moderator and facilitator). One of the chief functions of the team leader is to moderate the meeting. He or she regulates team member participation, performs the major agenda-making and summarizing functions, and is usually the person who does the inviting of meeting guests. The facilitator may or may not attend HIWT meetings regularly. However, the facilitator is the team's organizational guide through the bureaucratic maze when the team needs help. He or she typically has a good relationship with the HIWT's supervisors and other levels of management. The recorder obviously is the person who serves as the group's major memory source -- he or she is the keeper of the team's minutes from week to week and prepares the final form of communications that are sent from the team to other parties. Although other roles will naturally develop (e.g., information providers, clarifiers, tension releasers), the three major team roles described above are essential for successful development of the team and must be developed early in the HIWT process.

5. Problem Identification and Problem Solving

One of the major tasks of an HIWT from meeting to meeting is identifying problems and solving them. When a team is able to go beyond information sharing and ventilation in its meetings, it is able to move to problem identification stages, including problem clarification, and analysis. We like to have teams utilize Pareto Analysis and Nominal Group Technique to identify problems that affect their specific work situations. In this way team members are not threatened individually, and yet the team's priorities surface. We especially like the emphasis that is placed on equal participation by team members through the use of these problem identification techniques. Team problem solving requires suggestion and evaluation phases be thoroughly examined and pursued. Typically, we like to have a number of suggestions offered (even using a full-blown brainstorming technique to generate solutions & evaluate chances of success in real-world situations).

6. Task Completion & Follow up

Two difficult areas to achieve are task completion and follow-up. Although the team may have generated enough possible solutions, and even selected the best one, it is frequently difficult to get the solution implemented and in place. The overall requirement to the success of these two steps is HIWT persistence. Teams are taught that they are the ones responsible for the task being completed; i.e., they are empowered to see that the job gets done! Follow-up is a mandatory step. Teams that we have worked with have found that just because they are through with the problem-solution-task completion phases does not mean that others are done with the job. Follow-up is required at multiple staff levels. Although the team may be regarded by others in the plant as a proverbial pain in the-rear, if the HIWT isn't persistent in achieving its goals, who will be? Teams that follow-up on projects are ones that get action and move toward accomplishment of group and organizational goals.

7. Mission and Goal Statements

After the team has settled most of the basic procedural and leadership issues it is time to focus on Mission and Goal Statements that will give a sense of long term direction to team efforts. A modified group process is used to identify the elements that team members think should be included in their mission statement. Team members are asked to write down the words or phrases that best describe what the team is all about. The elements that emerge are listed by the team builder (or trainer) and the most important are selected by distributive voting process where team members have a limited number of votes to distribute across the elements they think are most important. The selected elements are crafted into a Mission Statement by an open, iterative process of editing until a final version emerges upon which all team members can agree. This version is tentatively adopted and is revisited within one or two weeks to see if it still has the support of the team. If team members continue to support the mission statement, it is adopted as final. Goal Statements are then developed through a similar process where team members are asked to identify the major things that must occur in order to achieve the mission statement. These are then listed in order of importance to the team and become their Goal Statements.

8. Agenda Setting

Developing the Mission and Goal Statements forms the framework for setting an agenda for the team. The Mission Statement indicates where the team wants to be as a unit and the Goal

Statements show milestones in reaching that point. But all goal statements are not equal. Some are more important than others and some have greater likelihood of success than others, given the state and climate of the business. We use a modified group process to identify which goal statements from the list that was described above should be addressed in which order based on the above importance/success criteria. Then we address each goal statement with a similar group process that yields a Paretotype analysis of the items to achieve group goals. These items form the team's agenda. In this way, the team is taught a logical and transferable method that can be used to set its long and short term agendas.

9. Communication

As you can tell by now, good communication is a key to the effectiveness of the HIWT process. Communication within the plant takes on new meaning for high involvement teams. Management will have an expectation, and rightly so, that teams will be communicating their accomplishments to various segments of the plant. This may take the form of memorandums, letters, contributions to the company house organs, reports of meetings, to name just a few communication vehicles. Further, there will be an expectation that groups cross boundaries and communicate on a lateral level with other teams. Many times problems can be minimized or eliminated by talking with other members. Frequently, members of one team will visit another HIWT team meeting to provide information and cooperatively work on HIWT projects. It is not uncommon for teams to develop their own logos and stationary to be utilized in communicating specifically with other teams and across the plant in general. Communication with the other groups will tend to be more informal, oral, and horizontal than communication with management (which tends to be a little more formal, written, and vertical).

10. Group Operating Procedures

These are the unique procedures by which members conduct the business of the team. They describe how team members address a problem and carry it through to completion. For example, suppose a team had identified a problem, made several recommendations to solve it, and recognized that the solutions needed to be applied by team members. How does the team orchestrate the solutions? Who does what, and in what order? To whom are results reported? How will the results be evaluated? How will a final decision be made and by what criteria? The team learns to resolve such questions through a set of effective operating procedures that permit involvement by all team members and provide for interaction within the group that creates an appropriate atmosphere for successful problem solving activity.

11. General Considerations

Other areas addressed by teams comprise general considerations that overlap and interact with other achievements that teams make. These include initiating action, learning the language of the business, addressing training needs,-and initiating or orienting new members.

Initiating Action. This is a critical skill the team must learn if it is to be effective. But it is not always such an easy skill to teach. In many cases, production operators have a long history of being trained to be, and rewarded for being passive workers. They assume that if something is important it will be addressed by engineering, management or the supervisor. Team members are encouraged instead to address issues assertively and to build and press their cases proactively. For example, if an assembly line is to be moved at some time in the future, the team should indicate early on that they expect to have some input into the rearrangement of the workstations rather than complain after the fact that they were not consulted.

Learning the Language of the Business. Each business has unique language that, as part of the corporate culture, shapes values as it expresses specific concepts of that business. Often, this language takes on characteristics of jargon, only understandable by a few individuals. When teams learn the *language of the business* their empowerment is accelerated because their ability to communicate important concepts is enhanced. One good way to help groups achieve business language knowledge is to use company publications that contain relevant information as instructional vehicles for teaching business language. For example, one business publishes a weekly production update sheet entitled "Quicken-The-Pulse Communication", which describes current orders/sales, backlog, and customer service data, along with information about materials, engineering, operations, quality, and human resources. These communications are sent weekly to the teams and are used to help team members understand and correctly use the business terms contained therein. As a result, teams are able to use business terms effectively when communicating with other sectors of the business.

Addressing Training Needs. Teams that have learned to properly analyze problems sometimes discover that productivity problems are caused, not by machine capability, engineering planning, or materials, but by a training deficit in the workers themselves. When this occurs, the team must address the training needs by balancing multiple priorities. They must identify the specific training need: what the training will cost, what source(s) are available and appropriate, and what the results of enhanced training will be. Some HIWTs may have a training budget or access to a budget. One group we know of developed an abbreviated "Training Request Form", which containing the above elements, and submitted the completed form to management when training was needed. After receiving the appropriate information, management was much more likely to approve the particular training requested, particularly when it could be shown to have a reasonable likelihood of achieving beneficial results to productivity. Even if a training budget does not exist, teams can often get action by a thorough analysis and appropriate use of language that is understood by decision makers within the business.

Initiating New Members. When new members join a team, as often happens with workers that are reassigned within a plant, the chemistry of that team changes quite abruptly. Sometimes this change temporarily drops the team back to a previous stage of development. Teams need a way to bring new members up to speed so they can quickly become contributing participants on team projects. In order to do this, teams demonstrate the desired behaviors by example to the neophyte, and often develop new members' skills by giving them special assignments that teach effective team behavior. For example, a new team member may be asked to collect information about a problem that is in his or her area of expertise and then report findings back to the group. Another approach is to use a basic training document in a question-and-answer format that responds to typical questions often asked by new team members. In this way the commonalities of team membership can be shared with new members and specific team knowledge can be addressed by the various groups. Most of the time we find teams that complete the 20 step check sheet that we discussed above are able to operate on their own with little intervention. There are cases, of course, that require some additional follow-up, as well as some specific prodding or propping up at certain stages (e.g., a new leader emerges or a member fills the recorder function when someone retires). The check sheet addressed initial training needs, and yet this training assessment may only scratch the surface; for example, if a HIWT needs to learn how to successfully complete an industry-specific cost benefits analysis. In sum, we have found our check sheet to provide a good grounding for an effective HIWT. We hope that it will be useful to other training professionals.

The Check Sheet

The check sheet for High Involvement Training was used to guide High Involvement Training for two groups of plastics set-up personnel at a mid-sized manufacturer of household and industrial vacuum cleaners. A questionnaire that had been developed from the check sheet (see

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handout) was used to assess team members' assessments of the extent to which their teams had achieved mastery of the twenty tasks on the questionnaire. The training occurred on site in the factory's training room one hour per week for approximately 5 months. About 18 sessions were held with each team. Assessments were made before the training occurred and at the termination of training.

Results

The results were still being analyzed at the time that *proceedings* documents were submitted, and will be presented at AHRD. The analysis will test the hypothesis that no change occurred in either of the two groups on the task items measured by the instrument. Initial inspection of results suggested that in both groups the posttest revealed an expansion of range in trainee responses over the pretest results. This finding may indicate that after training the teams had a clearer understanding of their performance on the tasks than they did at the inception of training and, therefore, showed greater variance in responses. Other results will be discussed.

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Characteristics of High Performance Work Teams: Perspectives from the Literature

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The formation and development of the high performance work team (HPWT) within organizations has been touted as the epitome of efficiency and productivity. This paper explores the concept of HPWTs by examining definitions and characteristics of HPWTs, characteristics of organizations that use HPWTs, and considerations in transitioning from traditional teams to HPWTs.

Today's competitive marketplace has taught business leaders the importance of implementing changes that enhance productivity. These include refining corporate structures, adopting new work strategies and using employee skills in new ways. The HPWT is a relatively new practice that incorporates all of these changes. Teams are becoming an integral way of life for American companies. Surveys show that teams of various types are in use in nearly all of the Fortune 1000 companies (Zigon, 1994). This paper explores the concept of HPWTs by examining definitions and characteristics of HPWTs, characteristics of organizations that use HPWTs, and considerations in transitioning from traditional teams to HPWTs.

Definitions of HPWTs

Defining the term *high performance work team* is a first step in understanding the concept of quality teams in the work place. Webster's dictionary (1994) defines a team as "a group of people working together in a coordinated effort" (p. 1373). A commonality among definitions of HPWT is that each offers an enhancement or elaboration of this basic definition. Beyond this agreement, however, almost as many different definitions of HPWTs exist as do articles and books on the subject. The definitions range from simple to very complex. The three definitions offered here focus on different aspects of the team process and output. Wellins' (1991) definition focuses on the team's responsibility. He noted that HPWTs are micro-groups of employees that are accountable for complete work procedures. Bassin's (1993) definition focuses on the process results of team interactions within a specific context. He stated that HPWTs consist of "a unique synergy created by the integration of the various resources and capacities of its members, focused against a clearly understood and deeply valued goal" (p. 62). Katzenbach & Smith (1993) offer the following all-inclusive definition: "A team is a small number of people with complementary skills who are committed to a common purpose, performance goals, and approach for which they hold themselves mutually accountable" (p. 45). With this last definition, team members, rather than individuals from outside the team, are responsible for the group's process and product.

A more functional understanding of HPWT can be obtained by adding to these definitions additional perspectives found in the literature. One perspective is that a HPWT is a powerful tool (Wright, 1994). Decision makers implement HPWTs because they believe that these groups will result in increased productivity and that HPWTs will positively affect the organization's bottom-line. Decision makers also believe that HPWT will be beneficial to employees and provide a mechanism for enhancing employee skills.

A second perspective is that HPWTs "produce high quality, planned results" (Pitman, 1994, p. 26). This perspective captures the understanding that teams have goals set at the beginning of their projects, with their primary purpose being to achieve the goals and to positively impact the bottom-line.

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A third perspective is that individual HPWT members are empowered and multidisciplined (Bassin, 1988). Team members make decisions that determine the outcome of their projects and they are able to perform in any team position should it become necessary for them to do so.

A fourth perspective is that the individual members of a HPWT interact well together (Pitman, 1994). Organizations with successful HPWTs recognize that these teams consist of more than groups of individuals hired to perform tasks. Because group dynamics can enhance productivity (Broersma, 1992), this perspective is an important addition to the definitions.

Adding these perspectives to the three initial definitions of HPWT shows that the concept seemingly incorporates paradoxes: Team members are empowered to make decisions, but simultaneously must accomplish preset goals; increased team productivity is achieved not by focusing just on the goals, but instead by focusing on goals *and* team processes; and the teams' strength comes from integrating the members' unique resources and capacities, but, at the same time, team members can perform in any team position. Understanding how successful HPWTs turn these contradictions into improved performance requires a closer look at the characteristics of HPWTs and the organizations that use them.

Characteristics of HPWTs

HPWTs are a function of their characteristics. The characteristics of HPWTs include multidimensional workers, team empowerment, shared goals and vision, continuous training, and the use of models for developing process efficiency. Each characteristic is discussed below.

HPWTs are comprised of multidimensional workers (Bassin, 1988). Bassin stated that a HPWT is not a collection of superstars, but rather people with beliefs, capabilities for collaboration, and support. In addition to being multidimensional, many writers agree that HPWT members must be multiskilled. Wellins (1991) stated that "team members are expected to learn all the jobs on the team" (p. 28). Wolff (1993) pointed out that the team can therefore allocate the work.

A second characteristic of HPWTs is that the group accepts the responsibility of empowerment. Empowered HPWTs can control their work and make decisions about the entire work process (Wellins, 1991). Team members commit to their goal and to the spirit of teamwork because team members honestly feel as if they are running their own businesses (Schilder, 1992). For example, team members can assign tasks and solve problems within the group (Cummings, 1978).

As Flanagan (1994) pointed out, members of HPWT have two jobs: To ensure that the day-to-day work gets done at the highest level of performance and, as a team member, to improve the process. Elements of HPWT empowerment are highlighted by (1) outstanding people, (2) team commitment to quality, (3) high ethical standards, (4) a management hierarchy which is patient and invests heavily in training, and (5) a working understanding of empowerment (Flanagan, 1994).

A third characteristic of HPWTs is that team members share goals, objectives and visions. The HPWT understands the need for clearly defined goals (Wolff, 1993). Bassin (1988) summarized this characteristic when he wrote, ". . .[it is] the unique synergy created by the integration of various resources and capacities of its members, focused against a clearly understood and deeply valued goal that makes extraordinary outputs possible" (p. 62). The process of defining common team objectives, individual roles, and objectives accomplishes two things. First, it helps the team develop into a more cohesive unit, and, second, it gives the team the measurement system it needs to be self-managing (Zigon, 1994).

A fourth characteristic of HPWTs is continuous training for team members. This training enables team members to work well together. Training can provide knowledge in areas such as job skills, business, problem solving, and team dynamics (Wellins, 1991).

A fifth characteristic of HPWTs is the development of models for maintaining and developing process efficiency within the teams. Once teams are formed, the members must work to improve organizational and team processes. How process is perceived, controlled and integrated by a work

team determines the level of performance achievement. Process, when controlled and used correctly by teams, tends to bring order and a sense of security by serving as a framework for identifying desired outcomes and benchmarking strategies. HPWTs evaluate work processes rather than specific tasks. Therefore, they are more focused and responsible for their job performance than are supervised teams. To be effective in working on process, Rosenfeld (1994) suggested that teams be knowledgeable of the inputs and outputs (suppliers, internal and external customers). Rosenfeld further suggested that teams review customer complaints and praises. He advised the team to become cross-functional and implement work flow charts to indicate inefficient re-work steps and necessary feedback loops. Rosenfeld continued to stress the importance of evaluating the appropriate technology of computers and communication technologies. He reviewed and identified bottleneck areas, wait time, touch time, and the elimination or combination of steps, while also stressing the importance of employee empowerment, appropriate staffing, a management review process and inspection steps. He concluded his review with an evaluation of supplier variability and response time.

Characteristics of Organizations that Use HPWTs

Often, implementing successful HPWTs within an organization requires changes in the corporate structure to allow the teams to foster and flourish. Following are some organizational characteristics that are important for the success of HPWTs.

First, organizations must empower their internal teams. Schilder (1992) pointed out that "team members must believe that they have ownership and make real decisions" (p.70). Wolff (1993) noted that management must be willing to give up some of its power. However, empowerment does not appear to work until employees believe that they can truly take ownership of what they produce. And, empowerment takes time to fully implement.

Second, organizations must use compensation methods appropriate for teams. Flanagan (1994) suggested that employees need financial rewards for accepting change, embracing empowerment and generating profits. He also noted that management which supports an empowered work force backs team efforts with both financial and emotional rewards.

New ideas for reviewing and measuring performance should incorporate measurements of self-management, cross-functional participation, and other work team structures (Zigon, 1994). For example, rewards and compensation could be provided to the team as a whole and individuals could be rewarded for learning new skills. In addition to advocating a group-based pay scheme, Cummings (1978) recommended giving feedback on performance as it related to the whole group. Zigon (1994) advocated focusing on key areas when developing an appraisal system for teams. He suggested that appraisals link the team's results to the organization's goals, that they focus on the work process the team follows in satisfying their customers' needs, that measurements not be limited to numerical components only, and that teams create their own measures of performance.

Third, organizations provide continuous training. This organizational characteristic is consistent with a HPWT characteristic described earlier (continuous training for team members). Successful organizations provide training in areas such as job skills, business, problem solving, team dynamics and organizational change (Schilder, 1992). Hassan (1993) noted that training also can be used to provide critical leadership techniques such as maintaining group focus; reflecting, summarizing and clarifying the discussion; and soliciting input from all group members. In addition, training is useful for helping teams create their own measures related to operational and process effectiveness, team objectives, and individual roles, all of which, in turn, leads to a stronger sense of empowerment (Zigon, 1994).

Fourth, organizations organize around process instead of function. One difference between HPWTs and ordinary work teams stems from the ability of HPWTs to perform an entire work process, and they are often used to focus on a specific process related to production, structure, or process-related areas within the organization. HPWTs serve as an "attempt to design effective relationships between social and technical components of work systems and between the systems and their task environments" (Cummings, 1978, p. 626).

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Many organizations use cross-functional HPWTs that are able to do parallel tasks in areas such as product and process development (Ancona and Caldwell, 1992). Cross-functional teams include representatives from different areas of the organization. While the diversity of such teams provides many benefits to the improvement of processes, Ancona & Caldwell believe that this same diversity could also harm the internal team processes.

For HPWTs to function as a process group rather than as individuals working together in a coordinated task (Webster's Dictionary, 1994) often requires organizational change.

Transitioning to HPWTs

The literature contains suggestions for organizations that want to implement HPWTs. Organizations and workers often resist change. Folz (1993) identified system disconnects within the team process and offered the following six suggestions to assist organizations in transitioning toward the inclusion of HPWTs in their work places: (1) provide an articulate directive of the expectations of change from the typical work place to the high performance work place at every level, (2) clarify work priorities and goals during the transition, (3) correctly assess the crucial job areas and assign them to the appropriate individual or team, (4) establish follow-up training, (5) commit upper management to empowerment, and (6) communicate the organization's commitment to transitioning toward HPWTs in the work place.

Communication is also key in the transition process. Organizations must create open forums for discussion (Flanagan, 1994). The HPWT members need to communicate about what is working, what is not working, and how to correct concerns. For example, critical-incident forums provide a useful vehicle for communication because they can be structured to allow for querying others within the same team or outside the unit. Hallestein (1989) pointed out that by communicating and establishing a data-base of information on how team members (or teams) handle particular process-related items, individuals and teams do not have to rely solely on their own judgment when facing similar difficulties.

Developing trust is also key in the transition. HPWTs must have workers who trust, have confidence in and cooperate with management (Hassan, 1993). According to Rosenfeld, this requires that HPWTs have access to complete knowledge of the relationship between the organization and customers and suppliers (Rosenfeld, 1994). Conway (1994) concurred. He stated that a team approach to this and other working relationships is imperative to the overall efficiency process of businesses and industries. Conway further stated that "not working closely with suppliers is the number one or number two cause of waste" (1994, p. 16).

Developing a systems approach is also key to transitioning to the HPWT. Rosenfeld incorporated a system's view of performance, much like that described in Rummler and Brache's (1990) article, "Improving Performance: How to Manage the White Space on the Organization Chart." Rosenfeld (1994) suggested a series of questions to assist in managing the white spaces. His questions are designed to help teams make their processes adapt to the environment, technology, customers, and employees. Rosenfeld also used the same systems view as Kauffman (1980) in Systems One by stressing the importance of feedback loops for maintaining a stable system. This systemic structure provides a framework for assuring the success and high performance of process areas within the larger group or organization.

The organizational transition to HPWTs also involves the evolution of a new organizational culture. Culture has a dramatic effect on a company's internal business climate, behavioral control, strategic formulation, social efficiency, organizational learning, integration and differentiation of ideas, and internal leadership (Saffold, 1988). To support HPWTs, the culture must encourage diversity in the workplace; empowerment; partnerships with shared goals, objectives, and visions; training; and process efficiency. An organization's culture shapes organizational processes. Organizational processes also create and modify the culture (Saffold, 1988).

Establishing a strong culture in the work place may seem like a simple task. However, Kotter and Heskett (1992) discovered the necessity of implementing numerous initiatives in order to develop a new culture.

The metamorphosis of a company occurs over time. The hard work involved with evolving a new organizational culture takes dedication and commitment, beginning with the leaders of the organization. Kotter and Heskett (1992) suggested that positive cultural development centers on the leader's ability to stir motivation, to communicate strategies, to identify opportunities and to understand human behavior and the decision-making process.

To foster the development of HPWTs, a company's cultural background should strive to teach the values of diversity. They should do so by educating their work forces on differing paths of thought and differing value systems, both of which lead to differing opinions and viewpoints. According to Duncan (1994), Earley's recent research suggests that when forming teams in the work place, it might be of imperative importance to properly match group members under certain circumstances (depending on the results/goals desired). Earley felt that such careful selection could lead to increased work performance.

To implement HPWTs into a work place culture, organizations must expect to undergo change. Making a work place culture more conducive to developing and maintaining HPWTs requires changes in management style rather than just in the organizational chart. Management can implement change. Management's challenge, however, is to implement *meaningful* change.

Meaningful change occurs if employees understand the 'why' behind the change. Employees can only understand the 'why' behind change if they understand the 'why' behind the organization. This includes how the organization works collectively, as well as in units (Lawler, 1989). Many company managers and owners also believe that to achieve total commitment to a corporation's culture, employees must be exposed to every facet of the company's records, including the financials (Stack, 1992).

In the process of accomplishing meaningful change, employees must converse about their professional and personal selves. Effective managers are those individuals that can foster and implement significant conversation (Webber, 1993). To this end, knowledge and information form a partnership. Lawler and Mohrman (1989) contend that power without knowledge is dangerous. Without visualizing the entire organization as a whole and why it works the way it does, employees cannot be expected to remain enthused about their roles. It can be seen, therefore, that knowledge is power to an organization. It would seem, then, that to create an organizational culture where HPWTs can thrive, it is imperative that the culture support avenues for the formation of a relevant knowledge-base and for information-flow throughout the organization.

Conclusion

Definitions of HPWTs express the usefulness of effective HPWTs as a dominant instrument in the overall management of the organization. HPWTs tend to do much more than perform tasks. They are "very powerful tools for unleashing the creativity and problem-solving ability of everyone in the organization" (Wright, 1994, 67).

Perspectives from the literature illustrate that HPWTs exhibit all the skills necessary to perform entire work processes. This accomplishment can be made because of the individual team members' diversity; an understanding by each team member of empowerment; a joint sharing of goals, objectives and visions for each project; the realization by each team member of the importance of continuous training; and the understanding and respect for process efficiency within the team. Understanding the characteristics of HPWTs and the characteristics of organizations that implement HPWTs further enhances the understanding of these teams by exposing the concepts of empowerment, appropriate compensation methods, continuous training, and organization around process rather than function. The result can be a satisfied work force and a healthier bottom line.

Additional research is needed to further understand the chemistry of teams and their actual effect on efficiency, productivity and profitability for organizations. Preliminary questions regarding HPWTs have perhaps been answered. Further study should include probing questions and should provide definitive answers to the performance of teams over time. An examination of how the cultural influences of organizations affect the formation, development and performance

of teams would seem beneficial as well. In addition, a direct investigation as to the difference between HPWTs and traditional good, solid teams might shed light on any difference between these two entities, if indeed there is a distinction.

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